

REPORT DOCUMENTATION PAGE

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MEMORANDUM FOR PRS (In-House Publication)

FROM: PROI (STINFO)

05 Nov 2001

SUBJECT: Authorization for Release of Technical Information, Control Number: **AFRL-PR-ED-AB-2001-221**
Paul Jones, et al., "Evaluation of Monopropellants for Reusable Launch Vehicles" (Abstract only)

AIAA Joint Propulsion Conference

(Statement A)

(07-10 July 2002)

(Deadline: 06 November 2001)

1. This request has been reviewed by the Foreign Disclosure Office for: a.) appropriateness of distribution statement, b.) military/national critical technology, c.) export controls or distribution restrictions, d.) appropriateness for release to a foreign nation, and e.) technical sensitivity and/or economic sensitivity.

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APPROVED/APPROVED AS AMENDED/DISAPPROVED

PHILIP A. KESSEL

Date

Technical Advisor

Space and Missile Propulsion Division

Title: Evaluation of Monopropellants for Reusable Launch Vehicles

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Abstract:

Previously, the Air Force has been investigating high performance salt-based, liquid monopropellants for low thrust spacecraft applications. The focus of this effort has been on finding a reduced toxicity monopropellant with a predicted density performance impulse greater than 50% over hydrazine. During this same period of time, NASA has been investigating reusable launch vehicle (RLV) concepts and has considered using monopropellants in this application. Anticipating a possible RLV payoff, NASA and the Air Force are working on a trade study to gauge the potential applicability of the salt-based monopropellants in booster applications. This study will include a performance comparison of salt-based monopropellants; a list of minimum safety, hazard, and physical property requirements based on operational and logistical support environments for an RLV.

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